<110> JELTSCH, Markku M

      ALITALO, Kari

      OLOFSSON, Birgitta

      ERIKSSON, Ulf

<120> GLYCOSYLATED VEGF-B AND METHOD FOR INCEREASING THE

      AMOUNT OF SOLUBLE VEGF-B

<130> 1064-48929PV Markku JELTSCH et al

<140>

<141>

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<170> PatentIn Ver. 2.0

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<211> 567

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<213> Homo sapiens

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Ala Pro Ala Gln Ala Pro Val Ser Gln Pro Asp Ala Pro Gly His Gln
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agg aaa gtg gtg tca tgg ata gat gtg tat act cgc gct acc tgc cag   144
Arg Lys Val Val Ser Trp Ile Asp Val Tyr Thr Arg Ala Thr Cys Gln
            15   20   25

ccc cgg gag gtg gtg gtg ccc ttg act gtg gag ctc atg ggc acc gtg   192
Pro Arg Glu Val Val Val Pro Leu Thr Val Glu Leu Met Gly Thr Val
        30   35   40

gcc aaa cag ctg gtg ccc agc tgc gtg act gtg cag cgc tgt ggt ggc   240
Ala Lys Gln Leu Val Pro Ser Cys Val Thr Val Gln Arg Cys Gly Gly
    45   50   55

tgc tgc cct gac gat ggc ctg gag tgt gtg ccc act ggg cag cac caa   288
Cys Cys Pro Asp Asp Gly Leu Glu Cys Val Pro Thr Gly Gln His Gln
60   65   70   75

gtc cgg atg cag atc ctc atg atc cgg tac ccg agc agt cag ctg ggg   336
Val Arg Met Gln Ile Leu Met Ile Arg Tyr Pro Ser Ser Gln Leu Gly
            80   85   90

gag atg tcc ctg gaa gaa cac agc cag tgt gaa tgc aga cct aaa aaa   384

Glu Met Ser Leu Glu Glu His Ser Gln Cys Glu Cys Arg Pro Lys Lys

    95   100   105

aag gac agt gct gtg aag cca gac agc ccc agg ccc ctc tgc cca cgc   432

Lys Asp Ser Ala Val Lys Pro Asp Ser Pro Arg Pro Leu Cys Pro Arg

    110   115   120

tgc acc cag cac cac cag cgc cct gac ccc cgg acc tgc cgc tgc cgc   480

Cys Thr Gln His His Gln Arg Pro Asp Pro Arg Thr Cys Arg Cys Arg

   125   130   135

tgc cga cgc cgc agc ttc ctc cgt tgc caa ggg cgg ggc tta gag ctc   528

Cys Arg Arg Arg Ser Phe Leu Arg Cys Gln Gly Arg Gly Leu Glu Leu

140   145   150   155

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<213> Homo sapiens

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Arg Lys Val Val Ser Trp Ile Asp Val Tyr Thr Arg Ala Thr Cys Gln
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Pro Arg Glu Val Val Val Pro Leu Thr Val Glu Leu Met Gly Thr Val
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Ala Lys Gln Leu Val Pro Ser Cys Val Thr Val Gln Arg Cys Gly Gly
65   70   75   80

Cys Cys Pro Asp Asp Gly Leu Glu Cys Val Pro Thr Gly Gln His Gln
                    85   90   95

Val Arg Met Gln Ile Leu Met Ile Arg Tyr Pro Ser Ser Gln Leu Gly
                100   105   110

Glu Met Ser Leu Glu Glu His Ser Gln Cys Glu Cys Arg Pro Lys Lys
                115   120   125

Lys Asp Ser Ala Val Lys Pro Asp Ser Pro Arg Pro Leu Cys Pro Arg
        130   135   140

Cys Thr Gln His His Gln Arg Pro Asp Pro Arg Thr Cys Arg Cys Arg
145   150   155   160

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<221> mat_peptide

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    -20                 -15                 -10


gcc ccc gcc cag gcc cct gtc tcc cag cct gat gcc cct ggc cac cag    96
Ala Pro Ala Gln Ala Pro Val Ser Gln Pro Asp Ala Pro Gly His Gln
 -5              -1  1               5                       10


agg aaa gtg gtg tca tgg ata gat gtg tat act cgc gct acc tgc cag   144
Arg Lys Val Val Ser Trp Ile Asp Val Tyr Thr Arg Ala Thr Cys Gln
            15                  20                  25


ccc cgg gag gtg gtg gtg ccc ttg act gtg gag ctc atg ggc acc gtg   192
Pro Arg Glu Val Val Val Pro Leu Thr Val Glu Leu Met Gly Thr Val
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gcc aaa cag ctg gtg ccc agc tgc gtg act gtg cag cgc tgt ggt ggc   240
Ala Lys Gln Leu Val Pro Ser Cys Val Thr Val Gln Arg Cys Gly Gly
        45   50   55

tgc tgc cct gac gat ggc ctg gag tgt gtg ccc act ggg cag cac caa   288
Cys Cys Pro Asp Asp Gly Leu Glu Cys Val Pro Thr Gly Gln His Gln
   60   65   70   75

gtc cgg atg cag atc ctc atg atc cgg tac ccg agc agt cag ctg ggg   336
Val Arg Met Gln Ile Leu Met Ile Arg Tyr Pro Ser Ser Gln Leu Gly
                80   85   90

gag atg tcc ctg gaa gaa cac agc cag tgt gaa tgc aga cct aaa aaa   384
Glu Met Ser Leu Glu Glu His Ser Gln Cys Glu Cys Arg Pro Lys Lys
                95   100   105

aag gac agt gct gtg aag cca gac agg gct gcc act ccc cac cac cgt   432
Lys Asp Ser Ala Val Lys Pro Asp Arg Ala Ala Thr Pro His His Arg
        110   115   120

ccc cag ccc cgt tct gtt ccg ggc tgg gac tct gcc ccc gga gca ccc   480
Pro Gln Pro Arg Ser Val Pro Gly Trp Asp Ser Ala Pro Gly Ala Pro
        125   130   135

tcc cca gct gac atc acc cat ccc act cca gcc cca ggc ccc tct gcc   528
Ser Pro Ala Asp Ile Thr His Pro Thr Pro Ala Pro Gly Pro Ser Ala
140   145   150   155

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His Ala Ala Pro Ser Thr Thr Ser Ala Leu Thr Pro Gly Pro Ala Ala
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gcc gct gcc gac gcc gca gct tcc tcc gtt gcc aag ggc ggg gct tag   624
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<213> Homo sapiens


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    -5                  -1   1                  5                  10


Arg Lys Val Val Ser Trp Ile Asp Val Tyr Thr Arg Ala Thr Cys Gln
                15                  20                  25


Pro Arg Glu Val Val Val Pro Leu Thr Val Glu Leu Met Gly Thr Val
                30                  35                  40


Ala Lys Gln Leu Val Pro Ser Cys Val Thr Val Gln Arg Cys Gly Gly
    45                  50                  55


Cys Cys Pro Asp Asp Gly Leu Glu Cys Val Pro Thr Gly Gln His Gln
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Val Arg Met Gln Ile Leu Met Ile Arg Tyr Pro Ser Ser Gln Leu Gly
                    80   85   90

Glu Met Ser Leu Glu Glu His Ser Gln Cys Glu Cys Arg Pro Lys Lys
                    95   100   105

Lys Asp Ser Ala Val Lys Pro Asp Arg Ala Ala Thr Pro His His Arg
                    110   115   120

Pro Gln Pro Arg Ser Val Pro Gly Trp Asp Ser Ala Pro Gly Ala Pro
                    125   130   135

Ser Pro Ala Asp Ile Thr His Pro Thr Pro Ala Pro Gly Pro Ser Ala
140   145   150   155

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Ala Ala Ala Asp Ala Ala Ala Ser Ser Val Ala Lys Gly Gly Ala
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gcc ccc gcc cag gcc cct gtc tcc cag cct gat gcc cct ggc cac cag    96
Ala Pro Ala Gln Ala Pro Val Ser Gln Pro Asp Ala Pro Gly His Gln
 -5              -1  1               5                    10


agg aaa gtg gtg tca tgg ata gat gtg tat act cgc gct acc tgc cag   144
Arg Lys Val Val Ser Trp Ile Asp Val Tyr Thr Arg Ala Thr Cys Gln
            15               20               25


ccc cgg gag gtg gtg gtg ccc ttg act gtg gag ctc atg ggc acc gtg   192
Pro Arg Glu Val Val Val Pro Leu Thr Val Glu Leu Met Gly Thr Val
            30               35               40


gcc aaa cag ctg gtg ccc agc tgc gtg act gtg cag cgc tgt ggt ggc   240
Ala Lys Gln Leu Val Pro Ser Cys Val Thr Val Gln Arg Cys Gly Gly
    45               50               55


tgc tgc cct gac gat ggc ctg gag tgt gtg ccc act ggg cag cac caa   288
Cys Cys Pro Asp Asp Gly Leu Glu Cys Val Pro Thr Gly Gln His Gln
 60               65               70               75
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gtc cgg atg cag atc ctc atg atc cgg tac ccg agc agt cag ctg ggg    336
Val Arg Met Gln Ile Leu Met Ile Arg Tyr Pro Ser Ser Gln Leu Gly
              80                    85                  90


gag atg tcc ctg gaa gaa cac agc cag tgt gaa tgc aga cct aaa aaa    384
Glu Met Ser Leu Glu Glu His Ser Gln Cys Glu Cys Arg Pro Lys Lys
              95                   100                 105


aag gac agt gct gtg aag cca gac                                    408
Lys Asp Ser Ala Val Lys Pro Asp
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<210> 6

<211> 136

<212> PRT

<213> Homo sapiens


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Ala Pro Ala Gln Ala Pro Val Ser Gln Pro Asp Ala Pro Gly His Gln
   -5              -1   1                 5                   10


Arg Lys Val Val Ser Trp Ile Asp Val Tyr Thr Arg Ala Thr Cys Gln
             15                  20                  25


Pro Arg Glu Val Val Val Pro Leu Thr Val Glu Leu Met Gly Thr Val
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Ala Lys Gln Leu Val Pro Ser Cys Val Thr Val Gln Arg Cys Gly Gly
        45   50   55

Cys Cys Pro Asp Asp Gly Leu Glu Cys Val Pro Thr Gly Gln His Gln
60   65   70   75

Val Arg Met Gln Ile Leu Met Ile Arg Tyr Pro Ser Ser Gln Leu Gly
                    80   85   90

Glu Met Ser Leu Glu Glu His Ser Gln Cys Glu Cys Arg Pro Lys Lys
                95   100   105

Lys Asp Ser Ala Val Lys Pro Asp
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cgagcaaaat ttaagctaca acaaggcaag gcttgaccga caattgcatg aagaatctgc 180

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cccgcccatt gacgtcaata atgacgtatg ttcccatagt aacgccaata gggactttcc 420

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<211> 5695

<212> DNA

<213> Artificial Sequence

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<213> Artificial Sequence

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<223> Description of Artificial Sequence: PCR primer to

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       289-297 of SEQ ID NO:3 (VEGF-B186)

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<210> 14

<211> 21

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<213> Artificial Sequence

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<223> Description of Artificial Sequence: PCR 5' primer

for amplification of nucleotides 250 to 567 from

Genebank Acc. No. U48801

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<210> 15

<211> 50

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<223> Description of Artificial Sequence: PCR 3' primer

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   Genebank Acc. No. U48801

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<211> 47

<212> DNA

<213> Artificial Sequence

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<223> Description of Artificial Sequence: PCR 3'

   primer for amplification of nucleotides 1 to 411

   from Genebank Acc. No. U48801

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